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Remarks

This Application has been carefully reviewed in light of the Office Action mailed March 11, 2009. At the time of the Office Action, Claims 1-12 were pending in the application and stand rejected. Applicants respectfully request reconsideration and allowance of all pending claims.

Section 103 Rejections

Claims 1-12 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent Publication No. 2003/0023957 by Bau, III et al. (*"Bau"*) in view of U.S. Patent Publication No. 2003/0217140 to Burbeck et al. (*"Burbeck"*). Applicants respectfully traverse this rejection.

The UDDI Standards Tutorial

At the outset, Applicants provide a brief discussion of various aspects of the Universal Description, Discover and Integration (UDDI) standards. The following discussion cites passages from the Specification section of Applicants' pending Application, as filed on August 25, 2003. Applicant's Application, as filed, also references the UDDI frequently asked questions (FAQs). Accordingly, for the benefit of the Examiner, Applicants further provide an attached copy of the UDDI FAQs as they appeared on the UDDI website on August 4, 2003. An electronic copy of the UDDI FAQs is available at http://web.archive.org/web/20030804051403/http://uddi.org/faqs.html.

"UDDI . . . is a set of Standards that have been defined to enable applications that use Web Services to quickly, easily and dynamically interact with one another." Specification at 1, ll. 13-15. The UDDI Standards do not feature a directory and do not feature a hierarchical organization of entries in a directory. *See* Specification at 2, ll. 8-9 ("[T]here is no formal relationship between UDDI and Directories."). Instead of a directory, the UDDI standards feature a registry that stores UDDI objects:

> The UDDI Standards describe a specific-purpose repository that is intended to manage descriptions of Web Service types, business organizations, and details about how to invoke Web Services. The Standards do not necessarily specify how the Standards should be implemented, not whether the implementation should include storage using a database, a Directory, or any other medium.

Specification at 1, l. 31, to 2, l. 4. This UDDI registry is not organized according to a hierarchy:

> The UDDI Standard defines a number of objects, some of which are related by hierarchy, but **UDDI does not define an all-encompassing hierarchy**. For example. Business Service Objects will come under Business Entity objects, and the Binding Template objects will come under Business Services. Figure 2 illustrates an example of this hierarchy. Business Entity objects are denoted 21, Business Services objects are denoted 22, and Binding Template objects are denoted 23. It is also to be noted that TModel objects, denoted 24, are not hierarchically related to this objects. There are also other concepts such as Publisher Assertions, for example, which are not defined hierarchically.

Specification at 2, l. 25, to 3, l. 2. In fact, one of the important issues that the UDDI Standards do not address is "[h]ow to represent UDDI information and requirements in hierarchy of Directory objects." Specification at 3, ll. 22-23. Instead, according to the UDDI standards organization, "'all [previous] UDDI implementations have been built on relational databases.'" Specification at 2, ll. 14-15 (quoting Oasis UDDI, FAQs, http://www.uddi.org/faqs.html).

Independent Claim 1

Claim 1 is directed to a method of generating keys for object(s) in a Web Services arrangement. At least one object based on at least one of a plurality of Universal Description, Discovery and Integration (UDDI) objects is stored as an entry in a directory. The directory includes a hierarchical organization of a plurality of entries. Each of the plurality of entries has a plurality of attributes. It is determined if the at least one object has a defined first key. If the at least one object has a defined first key, the defined first key is provided for the at least one object as a naming attribute for the entry corresponding to the at least one object in the directory. The defined first key uniquely identifies the entry in the directory. If the at least one object does not have a defined first key, a second key for the at least one object is provided as the naming attribute for the entry corresponding to the at least one object in the directory. The second key uniquely identifies the entry in the directory. The cited references do not teach or suggest each of the limitations.

Applicants respectfully submit that Independent Claim 1 is allowable because the proposed combination fails to teach, disclose, or suggest "storing at least one object based on at least one of a plurality of Universal Description, Discovery and Integration (UDDI) objects

as an entry in a directory, the directory comprising a hierarchical organization of a plurality of entries, each of the plurality of entries having a plurality of attributes." As three non-limiting examples, Applicants note that the proposed combination fails to teach, disclose, or suggest (a) a directory, (b) storing objects **based on** at least one of a plurality of UDDI objects as an entry in a directory, or (c) a directory comprising a hierarchical organization of a plurality of entries.

The Patent Office again concedes that *Bau* does not disclose these limitations. *See* Office Action at 3. Instead, the Patent Office argues that paragraphs 66 and 113 of *Burbeck* disclose these limitations. Office Action at 4. Specifically, the Patent Office cites *Burbeck*'s paragraph 66 as teaching "storing at least one object based on at least one of a plurality of Universal Description, Discovery and Integration (UDDI) objects as an entry in a directory." Office Action at 4. *Burbeck*'s paragraph 66 provides:

> [0066] In preferred embodiments, a run-time engine 220 embodying the present invention comprises an AXIS execution engine 225; three AXIS handlers 230, 235, 240 in a global handler chain; a linkbase repository 245; a meta-data repository 250; and a digital certificate repository 255. This run-time engine 220 is preferably embodied within a web service, illustrated by web service 200. A web service may optionally choose to implement a tModel instance 205. As is known in the art, a tModel indicates the behaviors or specifications which are implemented by a web service. tModels are stored in a UDDI registry to facilitate scanning the registry for implementations of a particular service. tModels may be used within the context of preferred embodiments of the present invention to specify the types of queries a web service supports. One or more content repositories, exemplified by content repository 210, store a node's local content and/or references to remotely-located content which may be accessed by the node represented by run-time engine 220.

The Patent Office cites *Burbeck*'s paragraph 66 as teaching the claimed features because "tModels are stored in a UDDI registry." Office Action at 4. However, Applicants respectfully submit that this brief explanation fails for at least two reasons. First, **Claim 1 does not recite storing a UDDI object; rather, Claim 1 recites storing an object based on a UDDI object.** A TModel is not an "object based on at least one . . . UDDI object"; rather, a

TModel may be considered one example of a UDDI object.[1] Also, *Burbeck* does not otherwise teach, disclose, or suggest storing an object based on a UDDI object. Second, **Burbeck teaches storing tModels in a *UDDI registry*, not storing an object based on a UDDI object <u>as an entry in a *directory*</u>.** As explained in the UDDI Standards Tutorial discussion provided above, a UDDI registry is not a directory, and there is no formal relationship between UDDI and directories. *Burbeck* never teaches, discloses, or suggests storing an object as an entry in a <u>directory</u>, as recited in Claim 1. Rather, *Burbeck* is directed solely towards storing UDDI objects in a UDDI registry.

Accordingly, Applicants submit that the Patent Office's citation of *Burbeck*'s fails because *Burbeck* does not teach, disclose, or suggest "storing at least one object based on at least one of a plurality of . . . UDDI objects as an entry in a directory." The Office Action does not allege that *Bau* cures these deficiencies; in fact, the Examiner acknowledges that *Bau* does not disclose these limitations of Claim 1.

Additionally, the Patent Office cites *Burbeck*'s paragraph 113 as teaching "the directory comprising a hierarchical organization of a plurality of entries." Office Action at 4. *Burbeck*'s paragraph 113 provides:

> [0113] 1) An inquiry Uniform Resource Indicator ("URI") which points to a UDDI registry, along with a binding key for a file-sharing service available from this node. Thus, when using the web services model with a UDDI registry, the alive message in this option identifies not only the registry that holds the publish and inquiry Application Programming Interface ("API") for this service, but also the binding key for this file-sharing service.

The Patent Office cites *Burbeck*'s paragraph 113 as teaching the claimed features because *Burbeck* teaches "UDDI registry." Office Action at 4. However, **a UDDI registry does not comprise "a hierarchical organization of a plurality of entries," as recited in Independent Claim 1.** As explained in the UDDI Standards Tutorial discussion provided above, UDDI Standards do not define a hierarchy and do not address "[h]ow to represent UDDI information and requirements in hierarchy of Directory objects." Furthermore, *Burbeck* does not otherwise teache, disclose, or suggest a hierarchical organization. Rather,

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[1] For example, dependent Claim 11 recites that the plurality of UDDI objects comprises a TModel object.

Burbeck merely incorporates the basic UDDI registry, which does not comprise a hierarchical organization.

Accordingly, Applicants submit that the Patent Office's citation of *Burbeck*'s fails because *Burbeck* does not teach, disclose, or suggest "the directory comprising a hierarchical organization of a plurality of entries." The Office Action does not allege that *Bau* cures this deficiency; in fact, the Examiner acknowledges that *Bau* does not disclose this limitation of Claim 1.

Furthermore, Applicants do not admit that the proposed combination is possible or that the Office Action provided an adequate reason for combining or modifying the references in the manner proposed by the Office Action.

Claim 6 also includes limitations generally directed to storing at least one object based on at least one of a plurality of Universal Description, Discovery and Integration (UDDI) objects as an entry in a directory, "the directory comprising a hierarchical organization of a plurality of entries. For at least those reasons discussed above with regard to Claim 1, Applicants respectfully contend that the cited references do not teach or suggest the limitations of Claim 6.

For at least these reasons, Applicants respectfully submit that Claims 1 and 6 are patentably distinguishable from the cited references and respectfully request reconsideration and allowance of independent Claims 1 and 6 and their dependent claims.
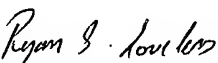
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Conclusion

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Ryan S. Loveless, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6913.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to **Deposit Account No. 02-0384 of Baker Botts L.L.P.**

Respectfully submitted,

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